CLAIMS:

1. A method of leaching a metal value from a heap of a metal-containing ore, which method includes:

(a) establishing a downward flow of a leach liquor through a section of the heap by supplying the leach liquor onto a top surface of the section and allowing the leach liquor (containing metal values in solution) to drain from a lower part of the section, and

(b) supplying the leach liquor onto the top surface of the section at a flow rate that is sufficient so that the downwardly flowing leach liquor saturates the section of the heap.

2. The method defined in claim 1 wherein step (a) includes establishing a plug flow of the leach liquor through the section of the heap and step (b) includes supplying the leach liquor at a flow rate that maintains the plug flow of the leach liquor and maintains saturation of the section of the heap

3. The method defined in claim 2 supplying the leach liquor in step (b) by supplying the leach liquor as a downwardly flowing curtain that contacts the top surface of the heap as a line or a narrow band that extends across the top surface and moving the curtain along the length of the section of the heap continuously or in a series of steps.

4. The method defined in claim 3 wherein the curtain is continuous across the top surface of the heap.

5. The method defined in any one of the preceding claims includes supplying the leach liquor in step (b) at a flow rate that is greater than 15 l/hr/m^2 of the top surface of the section.

6. The method defined in claim 5 wherein the flow rate is greater than 20 l/hr/m^2 of the top surface of the section.

7. The method defined in claim 6 wherein the flow rate be greater than 25 l/hr/m^2 of the top surface of the section.

8. The method defined in any one of the preceding claims wherein step (b) includes supplying the leach liquor for a relatively short time period compared with typical time periods for supplying leach liquors to heaps using known sprayer/sprinkler systems and drip systems.

9. The method defined in claim 8 wherein the time period is less than 4 hours per 24 hour period.

10. The method defined in claim 8 wherein the time period is less than 3 hours per 24 hour period.

11. The method defined in claim 8 wherein the time period be less than 2 hours per 24 hour period.

12. The method defined in any one of the preceding claims includes supplying the leach liquor in step (b) via a distributor that can be moved over the surface of the heap.

13. The method defined in any one of the preceding claims includes retaining and minimising run-off of the leach liquor supplied onto the top surface in step (b) by positioning a barrier on the top surface of the heap.

14. The method defined in any one of the preceding claims includes retaining and minimising run-off of the leach liquor supplied onto the top surface in step (b) by forming a series of furrows or other suitable troughs for leach liquor, and step (b) includes supplying the leach liquor into the furrows.

15. A heap leaching operation that includes:

(a) a heap of a metal-containing ore; and

(b) a leach liquor distributor for supplying leach liquor onto a top surface of a section of the heap at a flow rate that is sufficient so that the downwardly flowing leach liquor saturates the section of the heap.

16. The heap leaching operation defined in claim 15 wherein the distributor is a track mounted header pipe with a series of spaced-apart, spray outlets or an elongate slot outlet.

17. The heap leaching operation defined in claim 16 wherein the distributor is positioned so that the header pipe extends across the top surface of the heap and can be moved continuously or in the series of steps across the section of the heap and can supply the leach liquor as a curtain onto the top surface of the heap.

18. The heap leaching operation defined in claim 15 includes a cover above the top surface of the heap and the distributor includes a network of header pipes attached to the underside of the cover with a series of spaced-apart spray outlets, such that leach liquor may be applied to the top and side surfaces of the heap.

19. A method of leaching a metal value from a heap of a metal-containing ore substantially as hereinbefore described.

20. A heap leaching operation substantially as hereinbefore described.